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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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of

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		Complete if Known	
		Application Number	10/706,586
		Filing Date	11/12/2003
		First Named Inventor	John Brian Pendry
		Art Unit	2821
		Examiner Name	
		Attorney Docket Number	8068

NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. ¹
T P	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Bessel Functions – Orders 3-9, Bessel Functions of Integer Order. Compiled from British Association for the Advancement of Science, Bessel functions, Part II. Functions of positive integer order, Mathematical Tables, vol. X (Cambridge Univ. Press, Cambridge, England, 1952) and Mathematical Tables Project, Table of $f_n(s)=n!/(1/2X)^{-n}J_n(x)$. J. Math. Phys. 23, 45-60 (1944) (with permission).
	WOODWARD, P.M., and LAWSON, J.D., "The Theoretical Precision with Which an Arbitrary Radiation-Pattern may be Obtained from a Source of Finite Size." Journal I.E.E., Vol. 95, Part III, No. 37, September 1948.
	VESELAGO, V.G., "The Electrodynamics of Substances with Simultaneously Negative Values of ϵ and μ . Soviet Physics USPEKHI, Vol. 10, No. 4, January-February 1968.
	PENDRY, J.B., HOLDEN, A.J., STEWART, W.J., and YOUNGS, I., "Extremely Low Frequency Plasmons in Metallic Microstructures." Phys. Rev. Lett. 76, 4773-6, (1996).
	PENDRY, J.B., HOLDEN, A.J., ROBBINS, D.J., and STEWART, W.J., "Low Frequency Plasmons in Thin-Wire Structures." J. Phys. Condens. Matter, 10 (1998) pp. 4785-4809.
	PENDRY, J.B., HOLDEN, A.J., ROBBINS, D.J., and STEWART, W.J., "Magnetism from Conductors and Enhanced Nonlinear Phenomena." IEEE Transactions on Microwave Theory and Techniques, Vol. 47, No. 11, November 1999, pp. 2075-2084.
	SMITH, D.R., PADILLA, W.J., VIER, D.C., NEMAT-NASSER, S.C., and SCHULTZ, S., "Composite Medium with Simultaneously Negative Permeability and Permittivity." Physical Review Letters, The American Physical Society, Vol. 84, Number 18, 1 May 2000.
	PENDRY, J.B., "Negative Refraction Makes a Perfect Lens." Physical Review Letters, Vol. 85, No. 18, 30 October 2000, pp. 3966-3969.
	WARD, A.J., and PENDRY, J.B., "Refraction and Geometry in Maxwell's Equations." Journal of Modern Optics, 1998, vol. 43, no. 4, pp. 773-793.
↓	PENDRY, J.B., and RAMAKRISHNA, S.A., "Focusing Light Using Negative Refraction." J. Phys. Condens. Matter 15 (2003), pp. 6345-6364.

Examiner Signature		Date Considered	21/25/05
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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